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Implementation of the international drug control treaties: changes in the scope of control of substances

Changes in the scope of control of substances: proposed scheduling recommendations initiated by the World Health Organization

Note by the Secretariat

Summary

The present document contains recommendations for action to be taken by the Commission on Narcotic Drugs pursuant to the international drug control treaties. In accordance with article 3 of the Single Convention on Narcotic Drugs of 1961 as amended by the 1972 Protocol, the Commission will have before it for consideration a proposal from the World Health Organization (WHO) concerning a recommendation to place AH-7921 in Schedule I of that Convention.

In accordance with article 2 of the Convention on Psychotropic Substances of 1971, the Commission will have before it for consideration a proposal from WHO concerning a recommendation to place five substances in Schedule I of that Convention: *gamma*-butyrolactone (GBL), 1,4-butanediol, 25B-NBOMe (2C-B-NBOMe), 25C-NBOMe (2C-C-NBOMe) and 25I-NBOMe (2C-I-NBOMe). It will also have before it a recommendation from WHO to place five substances in Schedule II of that Convention: *N*-benzylpiperazine (BZP), JWH-018, AM-2201, 3,4-methylenedioxypyrovalerone (MDPV) and methylone (*beta*-keto-MDMA).

The present document also contains comments provided by Governments on economic, social, legal, administrative and other factors relevant to the proposed scheduling under the 1961 Convention and the 1971 Convention.

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I. Consideration of a notification from the World Health Organization concerning scheduling under the Single Convention on Narcotic Drugs of 1961 as amended by the 1972 Protocol

1. Pursuant to article 3, paragraphs 1 and 3, of the Single Convention on Narcotic Drugs of 1961 as amended by the 1972 Protocol, the Director-General of the World Health Organization (WHO), in her correspondence dated 25 November 2014, notified the Secretary-General of the United Nations that WHO recommended that AH-7921 be placed in Schedule I of the 1961 Convention (see annex for the relevant extract of that notification).

2. In accordance with the provisions of article 3, paragraph 2, of the 1961 Convention, the Secretary-General transmitted to all Governments a note verbale, dated 17 December 2014, annexing the notification and the information submitted by WHO in support of that recommendation.

3. As of 9 February 2015, the following 13 Governments had provided comments on economic, social, legal, administrative or other factors relevant to the inclusion of AH-7921 in Schedule I of the 1961 Convention: Australia, Belgium, Colombia, Côte d'Ivoire, Cyprus, Estonia, Germany, Nigeria, Qatar, Slovakia, Spain, Switzerland and Turkmenistan.

4. The Government of Australia reported that AH-7921 was classified as a prohibited drug under national legislation that included substances that may be abused or misused and should be prohibited unless for research purposes. An amendment was being sought to the relevant regulation to prohibit its import into Australia, unless a licence and permit had been granted. In the event that AH-7921 was scheduled under Schedule I of the 1961 Convention, the Government stated that its export would also be regulated.

5. The Government of Belgium reported that it could support the proposed placing of AH-7921 in Schedule I of the 1961 Convention.

6. The Government of Côte d'Ivoire reported that it did not have any recent reports on the use of the substance in scientific or medical fields. In order to prevent its trafficking and misuse, the Government favoured international control, as recommended by WHO.

7. The Government of Colombia agreed with the WHO recommendation to place AH-7921 in Schedule I of the 1961 Convention.

8. The Cyprus Anti-Drugs Council reported that AH-7921 was not yet controlled by national legislation, but its scheduling was under way. The Government reported that there were no available data on the prevalence of its use or its health and social consequences.

9. The Government of Estonia reported that substance AH-7921 had already been placed under national control.

10. The Government of Germany indicated its support for including AH-7921 in Schedule I of the 1961 Convention. The drug had already been placed under

national control, and the Government considered international scheduling very useful in order to better combat drug crime at the international level.

11. The Government of Nigeria reported that it had no objection to the proposed placing of the substance under international control.

12. The Government of Qatar reported that it had no objections to the possible scheduling of AH-7921.

13. The Government of Slovakia reported that AH-7921 was already subject to national control measures. Its manufacture, import, export, production and wholesale could be undertaken only for research or study. For that reason, including it in Schedule I of the 1961 Convention would not have any significant impact.

14. The Government of Spain indicated that AH-7921 had pharmacological effects similar to morphine but had no known medical value or use. For that reason, it favoured its inclusion in Schedule I of the 1961 Convention. The Government reported that there were no economic, social, legal, administrative or other factors to be considered.

15. The Government of Switzerland reported that there was no medical or industrial use of the substance known to Switzerland. Given its potential to cause harm and the lack of medical or industrial use, the substance was already under national control and the Government supported adding AH-7921 to Schedule I of the 1961 Convention.

16. The Government of Turkmenistan reported that it had no objection to the recommendation made by WHO.

Action by the Commission on Narcotic Drugs

17. The notification from the Director-General of WHO is before the Commission on Narcotic Drugs for its consideration, in accordance with the provisions of article 3, subparagraph 3 (iii), of the 1961 Convention, which reads as follows:

> "If the World Health Organization finds that the substance is liable to similar abuse and productive of similar ill effects as the drugs in Schedule I or Schedule II or is convertible into a drug, it shall communicate that finding to the Commission which may, in accordance with the recommendation of the World Health Organization, decide that the substance shall be added to Schedule I or Schedule II."

18. With regard to the decision-making process, the attention of the Commission is drawn to rule 58 of the rules of procedure of the functional commissions of the Economic and Social Council, which stipulates that decisions shall be made by a majority of the members present and voting. On the assumption that all members are present and voting, that means that, for a decision to be adopted, an affirmative vote of at least 27 members of the Commission is required.

19. The Commission should therefore decide whether it wishes to place AH-7921 in Schedule I of the 1961 Convention or, if not, what other action, if any, might be required.

II. Consideration of a notification from the World Health Organization concerning scheduling under the Convention on Psychotropic Substances of 1971

20. Pursuant to article 2, paragraphs 1 and 4, of the Convention on Psychotropic Substances of 1971, the Director-General of WHO, in her correspondence dated 25 November 2014, notified the Secretary-General that WHO recommended placing the following substances in Schedule I of the 1971 Convention: *gamma*-butyrolactone (GBL), 1,4-butanediol, 25B-NBOMe (2C-B-NBOMe), 25C-NBOMe (2C-C-NBOMe) and 25I-NBOMe (2C-I-NBOMe). She also notified the Secretary-General that WHO recommended placing the following substances in Schedule II of the 1971 Convention: *N*-benzylpiperazine (BZP), JWH-018, AM-2201, 3,4-methylenedioxypyrovalerone (MDPV) and methylone (*beta*-keto-MDMA) (see annex for the relevant extract of that notification). Information on mephedrone and ketamine is contained in E/CN.7/2015/7 and Add.1.

21. In accordance with the provisions of article 2, paragraph 2, of the 1971 Convention, the Secretary-General transmitted to all Governments a note verbale, dated 17 December 2014, annexing the notification and the information submitted by WHO in support of the recommendations.

22. As at 9 February 2015, the following 19 Governments had provided comments on economic, social, legal, administrative or other factors relevant to the recommended scheduling of those substances: Australia, Belgium, Colombia, Côte d'Ivoire, Cyprus, Czech Republic, Estonia, Germany, India, Israel, Japan, Nigeria, Qatar, Slovakia, Spain, Switzerland, Turkmenistan, United Kingdom of Great Britain and Northern Ireland and United States of America.

23. The Government of Australia reported that the import of 25B-NBOMe, 25C-NBOMe, 25I-NBOMe, BZP, JWH-018 and MDPV was prohibited unless a licence and permit had been granted, and criminal penalties applied for their illicit use or supply. They had also been classified as prohibited drugs that might be abused or misused and they had no legitimate use, other than for research purposes. In the event that those substances were scheduled as recommended by WHO, Australia would also regulate their export. The Government also reported that, if scheduled as recommended by WHO, AM-2201 would be considered as a prohibited drug under national legislation, and was not known to have any legitimate use, other than research. If added to Schedule II of the 1971 Convention, Australia would regulate its import and export. The Government stated that import of methylone without a licence and permit had already been prohibited, and if added to Schedule II of the 1971 Convention, Australia would regulate its export and initiate control measures in accordance with the 1971 Convention. With regard to the proposed scheduling of GBL and 1,4-butanediol, the Government of Australia recognized the potential for misuse, but was concerned that controlling those high-volume industrial chemicals would have a significant impact on industry. As the listing would put an enormous administrative and economic burden on both Government and industry, Australia would need to undertake further deliberations to determine whether it had the legislative framework to regulate an industrial chemical as an internationally controlled drug.

24. The Government of Belgium stated its support for the proposed placing of 25B-NBOMe, 25C-NBOMe and 25I-NBOMe in Schedule I of the 1971 Convention, and it was in favour of placing BZP, JWH-018, AM-2201, MDPV and methylone in Schedule II, although Belgian national experts favoured using Schedule I of that Convention. Some of those compounds were severely toxic, had well-known abuse and dependence potential and had no legitimate medical use. The Government reported that it could not support the proposed placing of GBL and 1,4-butanediol in Schedule I, as they were widely used as industrial chemicals that served as critical ingredients (solvents) in pharmaceutical, chemical and high-tech industries, and in the production of polymers and plastics. Their trade in Belgium amounted to tons and scheduling would result in the prohibition of all industrial use. The Government recognized the problems with illegal use and potential health risks and reported that the two substances were not under national control, but traders were asked to notify the Government of any suspicious orders. In addition, national experts on new psychoactive substances had reported that the same reasoning should be applied to tetrahydrofuran (THF), which was a widely available solvent used industrially on a very large scale. There was considerable evidence that it could very easily be converted to GBL, either by organic synthesis or by in vivo human biotransformation.

25. The Government of Colombia reported that it could agree with the recommendation to place GBL, 1,4-butanediol, 25B-NBOMe, 25C-NBOMe and 25I-NBOMe in Schedule I of the 1971 Convention, and to place BZP, JWH-018, AM-2201, MDPV and methylone in Schedule II of the 1971 Convention.

26. The Government of Côte d'Ivoire reported that it did not have any recent reports on the use of the substances in scientific or medical fields. In order to prevent their trafficking and misuse, the Government favoured international control, as recommended by WHO.

27. The Cyprus Anti-Drugs Council reported that BZP, JWH-018, AM-2201, MDPV and methylone were already under national control. 1,4-Butanediol, 25B-NBOMe, 25C-NBOMe and 25I-NBOMe were not yet under national control, but their scheduling was under way. The Government reported that there were no available data on the prevalence of their use or health and social consequences.

28. The Government of the Czech Republic reported that it did not support and did not recommend the inclusion of GBL and 1,4-butanediol into Schedule I of the 1971 Convention. The substances were industrial chemicals, tons of which were produced and dispensed every year. Their inclusion in Schedule I would hamper their handling and treatment, and companies that used them would have to modify their production process, which would be expensive. The Government also reported that the two substances had been included in national legislation.

29. The Government of Estonia reported that GBL and 1,4-butanediol were included in schedule V of the national legislation, which prohibited their handling only when the purpose thereof was causing drug intoxication. The Government also reported that all other substances concerned by the WHO notification had already been included in schedule I of that national legislation.

30. The Government of Germany indicated its support for the inclusion of 25B-NBOMe, 25C-NBOMe and 25I-NBOMe in Schedule I of the 1971 Convention, and BZP, JWH-018, AM-2201, MDPV and methylone in Schedule II of the

1971 Convention. Those substances had already been placed under national control, and it considered international scheduling of them to be very useful in order to better combat drug crime internationally. The Government of Germany disagreed with the proposed scheduling of GBL and 1,4-butanediol because of their wide use in the production of a wide range of chemical products. The global market demand for 1,4-butanediol was estimated to be 1.9 million tons per year, 78 per cent of which was used for the production of GBL, the raw material for many other chemicals. GBL was used as a solvent in many industries and had low toxicity and was not considered to pose a risk to the environment. The Government of Germany stated its concern about abuse of GBL and 1,4-butanediol, but was of the opinion that international control might not be the best way to combat such abuse, given the large quantities that were used legally in industry. The Government described its good experiences with a voluntary control system that involved the chemical industry working in close cooperation with the relevant national authorities.

31. The Government of India indicated that none of the substances recommended for international control were approved in India for medical purposes. The Government reported that it supported placing 25B-NBOMe, 25C-NBOMe and 25I-NBOMe, as well as BZP, JWH-018, AM-2201, MDPV and methylone, in Schedule I of the 1971 Convention, as recommended by WHO, as the substances had no therapeutic usefulness. The Government of India reported that GBL and 1,4-butanediol were widely used in industrial applications and their inclusion in the 1971 Convention would hamper the use of many industrial chemicals in that sector. For that reason, it did not support their inclusion under the 1971 Convention.

32. The Government of Israel reported that all substances recommended for international control under the 1971 Convention were controlled in Israel.

33. The Government of Japan reported that several tens of thousands of tons of GBL and 1,4-butanediol were handled in Japan, and that they were widely used in various industrial sectors, including the automotive, electronic appliances, pharmaceutical and textiles sectors. As few substances could be used as substitutes for GBL or 1,4-butanediol in any of their industrial uses, under the current circumstances, the Government reported that the majority of its supply chain would be enormously influenced and there would be an immeasurable negative impact on a wide range of downstream products. The Government of Japan recognized that the two materials were used widely not only in Japan but also in foreign countries, which implied serious concern for manufacturers importing them from Japan, and it might become difficult to supply Japanese products efficiently to the world if international control was implemented. The Government of Japan therefore reported that sufficient studies on the potential economic impact should be conducted first, followed by a very cautious discussion in order to decide whether scheduling was appropriate or not, and insisted that the scheduling of GBL and 1,4-butanediol was unsuitable in the current situation.

34. The Government of Nigeria reported that it had no objection to the proposed placing of the substances under international control. The substances were similar to cocaine, heroin and lysergic acid diethylamide (LSD) and were not licensed for use in Nigeria. The Government also reported that GBL and 1,4-butanediol were recognized as having industrial uses, but such uses were yet to be harnessed in Nigeria, as no regulatory permits had been issued for industrial purposes. Given that all the substances were psychotropic in nature with no known medical use, the

Government affirmed that they could be placed under international control, as recommended.

35. The Government of Qatar reported that it had no objections to the possible scheduling of substances as recommended by WHO.

36. The Government of Slovakia reported that the proposed scheduling would not have any significant impact. All the recommended substances, except 1,4-butanediol, 25B-NBOMe and 25C-NBOMe, were already under national control, and therefore their manufacture, import, export, production and wholesale could be undertaken only for purposes of research or study. The handling of 25I-NBOMe, BZP, JWH-018, AM-2201, MDPV and methylone could also be carried out for health-care or veterinary care purposes.

37. The Government of Spain reported that it was in favour of including 25B-NBOMe, 25C-NBOMe and 25I-NBOMe in Schedule I of the 1971 Convention and BZP, JWH-018, AM-2201, MDPV and methylone in Schedule II, given their lack of known medical value or use and the risks they posed to health. It also reported that the placing of BZP under national control was currently being considered. The Government of Spain stated that GBL had no demonstrated therapeutic value and was not a component of any medicine. It was, however, produced in vast quantities and used as an industrial solvent. Placing it under Schedule I of the 1971 Convention would imply prohibiting its use, production, import, export, transit, trade, distribution and possession and restricting its use to scientific purposes. 1,4-Butanediol could be dangerous to public health; however, it was also used in the chemical industry in Spain. To ensure continued industrial use, while preventing abuse, the Government of Spain reported that GBL and 1,4-butanediol should be placed under international control, but not in Schedule I of the 1971 Convention.

38. The Government of Switzerland reported that it would not support adding GBL and 1,4-butanediol to Schedule I of the 1971 Convention, as that would have a serious negative economic, social, legal and administrative impact in Switzerland. The two substances were widely used in the chemical, pharmaceutical and other industries and it would be difficult to replace them with other substances. It also reported that the majority of GBL manufactured was used by industrial companies as an intermediate in the manufacturing process of other chemicals. 1,4-Butanediol served predominantly as an intermediate ingredient in common industrial and commercial products such as plastics, but was used also as a solvent in printing inks and cleaning agents. Given its widespread use in large quantities (shipments often amounted to between 20 and 500 tons), national control seemed the appropriate response. The Government of Switzerland had no objection to placing 25B-NBOMe, 25C-NBOMe and 25I-NBOMe in Schedule I, and supported placing BZP, JWH-018, AM-2201, MDPV and methylone in Schedule II. The Government of Switzerland reported that no medical or industrial use of those substances was known in Switzerland and, given their potential to cause harm, they were under national control.

39. The Government of Turkmenistan reported that it had no objection to the recommendations made by WHO pursuant to the 1971 Convention.

40. The Government of the United Kingdom reported that it recognized the risks to public health posed by GBL and by 1,4-butanediol, which had been placed under

national control since 2009. However, it was concerned that placing them in Schedule I of the 1971 Convention would have a significant and disproportionate impact on industry, as both substances were bulk industrial chemicals in widespread use. The Government reported that implementing a licensing regime for GBL and 1,4-butanediol would cause a number of practical difficulties and would place a burden on the legitimate trade in those substances. The Government noted that placing GBL and 1,4-butanediol in Schedule I of the 1971 Convention would mean that industry could no longer trade in those chemicals, as it was not permitted to establish a licensing regime for industrial use for substances listed in Schedule I.

41. The Government of the United States reported on the legitimate commercial usage of GBL and 1,4-butanediol. GBL was used as the precursor in the manufacture of United States Food and Drug Administration-approved pharmaceutical products containing *gamma*-hydroxybutyric acid (GHB), such as Xyrem, and had other widespread industrial uses. It was a common solvent found in paint strippers, nail polish removers, stain removers and circuit board cleaners, and was a common intermediate in industrial chemistry, including the manufacture of pyrrolidones. 1,4-Butanediol was used in the production of spandex fibres, urethane elastomers and copolyester ethers. Sizable quantities of 1,4-butanediol were also used to make GBL, which was used in electronics, pharmaceuticals and agrochemicals, as well as in high-performance polymers. The Government pointed out the production of and trade in large quantities of both GBL and 1,4-butanediol, and concluded that regulating the two substances would cause a significant disruption to legitimate international trade and could cause a significant hardship to legitimate pharmaceutical consumers. In addition, GBL and 1,4-butanediol were not widely abused in the United States and were subject to all the legal and regulatory controls under national legislation. Considering their widespread industrial use, the United States wondered whether the measures to prevent diversion of those substances under article 12 of the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances of 1988 might provide adequate controls against trafficking.

Action by the Commission on Narcotic Drugs

42. The notification by the Director-General of WHO is before the Commission on Narcotic Drugs for consideration, in accordance with the provisions of article 2, paragraph 5, of the 1971 Convention, which reads as follows:

> "5. The Commission, taking into account the communication from the World Health Organization, whose assessments shall be determinative as to medical and scientific matters, and bearing in mind the economic, social, legal, administrative and other factors it may consider relevant, may add the substance to Schedule I, II, III or IV. The Commission may seek further information from the World Health Organization or from other appropriate sources."

43. With regard to the decision-making process, the attention of the Commission is drawn to article 17, paragraph 2, of the 1971 Convention, which stipulates that the "decisions of the Commission provided for in articles 2 and 3 shall be taken by a two-thirds majority of the members of the Commission". That means that, for a

decision to be adopted, an affirmative vote of at least 35 members of the Commission is required.

44. The Commission should therefore decide:

(a) Whether it wishes to include *gamma*-butyrolactone (GBL) in Schedule I of the 1971 Convention, or, if not, what other action, if any, is required;

(b) Whether it wishes to include 1,4-butanediol in Schedule I of the 1971 Convention, or, if not, what other action, if any, is required;

(c) Whether it wishes to include 25B-NBOMe (2C-B-NBOMe) in Schedule I of the 1971 Convention, or, if not, what other action, if any, is required;

(d) Whether it wishes to include 25C-NBOMe (2C-C-NBOMe) in Schedule I of the 1971 Convention, or, if not, what other action, if any, is required;

(e) Whether it wishes to include 25I-NBOMe (2C-I-NBOMe) in Schedule I of the 1971 Convention, or, if not, what other action, if any, is required;

(f) Whether it wishes to include *N*-benzylpiperazine (BZP) in Schedule II of the 1971 Convention, or, if not, what other action, if any, is required;

(g) Whether it wishes to include JWH-018 in Schedule II of the 1971 Convention, or, if not, what other action, if any, is required;

(h) Whether it wishes to include AM-2201 in Schedule II of the 1971 Convention, or, if not, what other action, if any, is required;

(i) Whether it wishes to include 3,4-methylenedioxypyrovalerone (MDPV) in Schedule II of the 1971 Convention, or, if not, what other action, if any, is required;

(j) Whether it wishes to include methylone (*beta*-keto-MDMA) in Schedule II of the 1971 Convention, or, if not, what other action, if any, is required.

Annex

Extract of the notification from the Director-General of the World Health Organization to the Secretary-General dated 25 November 2014 concerning scheduling of substances under the Single Convention on Narcotic Drugs of 1961 as amended by the 1972 Protocol, and the Convention on Psychotropic Substances of 1971, including the relevant extract from the report of the thirty-sixth meeting of the Expert Committee on Drug Dependence

With reference to article 2, paragraphs 1, 4 and 6, of the Convention on Psychotropic Substances of 1971 and article 3, paragraphs 1, 3 and 5, of the Single Convention on Narcotic Drugs of 1961 as amended by the 1972 Protocol, and following the thirty-sixth meeting of the Expert Committee on Drug Dependence in June 2014, I am pleased to submit recommendations of the World Health Organization (WHO).

The recommendations are that:

(a) AH-7921 be placed in Schedule I of the 1961 Convention;

(b) *gamma*-Butyrolactone (GBL), 1,4-butanediol, 25B-NBOMe (2C-B-NBOMe), 25C-NBOMe (2C-C-NBOMe) and 25I-NBOMe (2C-I-NBOMe) be placed in Schedule I of the 1971 Convention;

(c) *N*-Benzylpiperazine (BZP); JWH-018; AM-2201; 3,4-methylenedioxypyrovalerone (MDPV); methylone (*beta*-keto-MDMA) and mephedrone[a] be placed in Schedule II of the 1971 Convention.

The recommendations and the assessments and findings on which they are based are set out in detail in the report of the thirty-sixth meeting of the Expert Committee on Drug Dependence, which is the Committee that advises me on these issues. An extract of the Committee's report is presented below.

Extract from the report of the thirty-sixth meeting of the Expert Committee on Drug Dependence

Substances recommended to be scheduled in Schedule I of the Single Convention on Narcotic Drugs of 1961 as amended by the 1972 Protocol

AH-7921

AH-7921 is an *N*-substituted cyclohexylmethylbenzamide and is chemically 3,4-dichloro-N-{[1-(dimethylamino)cyclohexyl]methyl}benzamide.

AH-7921 had not been previously pre-reviewed or critically reviewed by the Committee. A direct critical review was proposed based on information brought to the attention of WHO that AH-7921 is clandestinely manufactured, poses an

[a] Information on mephedrone is contained in document E/CN.7/2015/7.

especially serious risk to public health and society and has no recognized therapeutic use by any party. Preliminary data collected from literature and from different countries indicated that this substance may cause substantial harm and that it has no medical use.

AH-7921 is an opioid with "morphine-like" effects. The Committee considered that the degree of risk to public health and society associated with the abuse liability and accompanying evidence warranted its placement under international control. The Committee recommended that AH-7921 be placed in Schedule I of the 1961 Convention.

Substances recommended to be scheduled in Schedule I of the Convention on Psychotropic Substances of 1971

gamma-*Butyrolactone*

gamma-Butyrolactone (GBL) is chemically oxolan-2-one. GBL can be synthesized from *gamma*-hydroxybutyric acid (GHB) or tetrahydrofuran.

During the discussion on GHB at the thirty-fourth meeting of the WHO Expert Committee on Drug Dependence, the Committee "noted information relating to the abuse of GBL itself (convertible to GHB in the body) and suggested this substance for pre-review". Based on the evidence presented in the pre-review of GBL during its thirty-fifth meeting, given its close association with GHB, and the recommendation made by the Committee to reschedule GHB from Schedule IV to Schedule II of the 1971 Convention, the Committee recommended that a critical review of GBL be undertaken.

The Committee considered that the degree of risk to public health and society associated with the abuse liability of GBL is especially serious. While the Committee recognized its widespread and important industrial use, it has no defined therapeutic usefulness. The Committee considered that the evidence of its abuse warranted its placement under international control within Schedule I of the 1971 Convention.

1,4-Butanediol

1,4-Butanediol (butane-1,4-diol, 1,4-BDO or 1,4-BD) is one of four stable isomers of butanediol.

During the discussion of *gamma*-hydroxybutyric acid (GHB) at its thirty-fourth meeting, the Committee "noted information relating to the abuse of 1,4-butanediol itself (convertible to GHB in the body) and suggested this substance for pre-review". Based on the evidence presented in the pre-review of GBL during its thirty-fifth meeting, given its close association with GHB, and the recommendation made by the Committee to reschedule GHB from Schedule IV to Schedule II of the 1971 Convention, the Committee recommended that a critical review of 1,4-butanediol be undertaken.

1,4-Butanediol produces its effects in the body through the in vivo formation of the scheduled substance GHB. The Committee considered that the degree of risk to public health and society associated with the abuse liability of 1,4-butanediol is especially serious. While the Committee recognized its widespread and important industrial use, it has no defined therapeutic usefulness. The Committee considered

that the evidence of its abuse warranted its placement under international control within Schedule I of the 1971 Convention.

25B-NBOMe

25B-NBOMe (2C-B-NBOMe) is chemically 2-(4-bromo-2,5-dimethoxyphenyl)-*N*-[(2-methoxyphenyl)methyl]ethanamine.

25B-NBOMe had not been previously pre-reviewed or critically reviewed by the Committee. A direct critical review was proposed based on information brought to the attention of WHO that 25B-NBOMe is clandestinely manufactured, poses an especially serious risk to public health and society and has no recognized therapeutic use by any party. Preliminary data collected from literature and from different countries indicated that this substance may cause substantial harm and that it has no medical use.

The Committee noted the challenges associated with the evidence base concerning the substance. The Committee considered that the degree of risk to public health and society associated with the abuse liability of 25B-NBOMe is especially serious. While the Committee noted its use in medical research, it has no recorded therapeutic use.

The Committee considered that the evidence of its abuse warranted its placement under international control and recommended that 25B-NBOMe be placed in Schedule I of the 1971 Convention.

25C-NBOMe

25C-NBOMe (2C-C-NBOMe) is chemically 2-(4-chloro-2,5-dimethoxyphenyl)-*N*-[(2-methoxyphenyl)methyl]ethanamine.

25C-NBOMe had not been previously pre-reviewed or critically reviewed by the Committee. A direct critical review was proposed based on information brought to the attention of WHO that 25C-NBOMe is clandestinely manufactured, poses an especially serious risk to public health and society and has no recognized therapeutic use by any party. Preliminary data collected from literature and from different countries indicated that this substance may cause substantial harm and that it has no medical use.

The Committee noted the challenges associated with the evidence base concerning the substance. The Committee considered that the degree of risk to public health and society associated with the abuse liability of 25C-NBOMe is especially serious. While the Committee noted its use in medical research, it has no recorded therapeutic use. The Committee considered that the evidence of its abuse warranted its placement under international control and recommended that 25C-NBOMe be placed in Schedule I of the 1971 Convention.

25I-NBOMe

25I-NBOMe (2C-I-NBOMe) is chemically 2-(4-iodo-2,5-dimethoxyphenyl)-*N*-[(2-methoxyphenyl)methyl]ethanamine.

25I-NBOMe had not been previously pre-reviewed or critically reviewed by the Committee. A direct critical review was proposed based on information brought to

the attention of WHO that 25I-NBOMe is clandestinely manufactured, poses an especially serious risk to public health and society and has no recognized therapeutic use by any party. Preliminary data collected from literature and from different countries indicated that this substance may cause substantial harm and that it has no medical use.

The Committee noted the challenges associated with the evidence base concerning the substance. The Committee considered that the degree of risk to public health and society associated with the abuse liability of 25I-NBOMe is especially serious. While the Committee noted its use in medical research, it has no recorded therapeutic use. The Committee considered that the evidence of its abuse warranted its placement under international control and recommended that 25I-NBOMe be placed in Schedule I of the 1971 Convention.

Substances recommended to be scheduled in Schedule II of the Convention on Psychotropic Substances of 1971

N-Benzylpiperazine

N-Benzylpiperazine (BZP) is an aryl-substituted piperazine and is chemically 1-benzyl-1,4-diazacyclohexane.

BZP was pre-reviewed at the thirty-fifth meeting of the Committee and, based on the reported psychostimulant effects, evidence of abuse and adverse effects, the Committee concluded that a critical review was warranted.

BZP has been shown to have effects similar to amphetamine. The Committee considered that the degree of risk to public health and society associated with the abuse liability of BZP is substantial. Its therapeutic usefulness has been assessed to be little, as it is not currently licensed for use. The Committee considered that the evidence of its abuse warranted its placement under international control. The Committee recommended that BZP be placed in Schedule II of the 1971 Convention.

JWH-018

JWH-018 is chemically naphthalen-1-yl(1-pentyl-1*H*-indol-3-yl)methanone.

JWH-018 had not been previously pre-reviewed or critically reviewed by the Committee. A direct critical review was proposed based on information brought to the attention of WHO that JWH-018 is clandestinely manufactured, poses an especially serious risk to public health and society and has no recognized therapeutic use by any party. Preliminary data collected from literature and from different countries indicated that this substance may cause substantial harm and that it has no medical use.

The Committee noted the challenges associated with the evidence base concerning the substance. The Committee noted analytically confirmed cases of non-fatal and fatal intoxications involving JWH-018. The Committee therefore considered that the degree of risk to public health associated with the abuse liability of JWH-018 is substantial. Its therapeutic usefulness has not been recorded. As per paragraph 56 of the "Guidance on the WHO review of psychoactive substances for international control", higher regard was accorded to the substantial public health risk than to the

lack of therapeutic usefulness. The Committee recommended that JWH-018 be placed under international control in Schedule II of the 1971 Convention.

AM-2201

AM-2201 is chemically [1-(5-fluoropentyl)-1*H*-indol-3-yl]-naphthalen-1-ylmethanone.

AM-2201 had not been previously pre-reviewed or critically reviewed. A direct critical review was proposed based on information brought to the attention of WHO that AM-2201 is clandestinely manufactured, poses an especially serious risk to public health and society and has no recognized therapeutic use by any party. Preliminary data collected from literature and from different countries indicated that this substance may cause substantial harm and that it has no medical use.

The Committee noted the challenges associated with the evidence base concerning the substance. It also noted analytically confirmed cases of non-fatal and fatal intoxications involving AM-2201. The Committee therefore considered that the degree of risk to public health associated with the abuse liability of AM-2201 is substantial. Its therapeutic usefulness has not been recorded. As per paragraph 56 of the "Guidance on the WHO review of psychoactive substances for international control", higher regard was accorded to the substantial public health risk than to the lack of therapeutic usefulness. The Committee recommended that AM-2201 be placed under international control in Schedule II of the 1971 Convention.

3,4-Methylenedioxypyrovalerone

3,4-Methylenedioxypyrovalerone (MDPV) is chemically (*R,S*)-1-(1,3-benzodioxol-5-yl)-2-(pyrrolidin-1-yl)pentan-1-one.

MDPV had not been previously pre-reviewed or critically reviewed by the Committee. A direct critical review was proposed based on information brought to the attention of WHO that MDPV is clandestinely manufactured, poses especially serious risk to public health and society and has no recognized therapeutic use by any party. Preliminary data collected from literature and from different countries indicated that this substance may cause substantial harm and that it has no medical use.

The Committee considered that the degree of risk to public health and society associated with the abuse liability of MDPV is substantial. Its therapeutic usefulness has not been recorded. The Committee considered that the evidence of its abuse warranted its placement under international control. As per paragraph 56 of the "Guidance on the WHO review of psychoactive substances for international control", higher regard was accorded to the substantial public health risk than to the lack of therapeutic usefulness. The Committee recommended that MDPV be placed in Schedule II of the 1971 Convention.

Methylone

Methylone (*beta*-keto-MDMA) is chemically (*R,S*)-1-(1,3-benzodioxol-5-yl)-2-(methylamino)propan-1-one.

Methylone had not been previously pre-reviewed or critically reviewed by the Committee. A direct critical review was proposed based on information brought to

the attention of WHO that methylone is clandestinely manufactured, poses an especially serious risk to public health and society and has no recognized therapeutic use by any party. Preliminary data collected from literature and different countries indicated that this substance may cause substantial harm and that it has no medical use.

The Committee considered that the degree of risk to public health and society associated with the abuse liability of methylone is substantial. Its therapeutic usefulness has not been recorded. The Committee considered that the evidence of its abuse warranted its placement under international control. As per paragraph 56 of the "Guidance on the WHO review of psychoactive substances for international control", higher regard was accorded to the substantial public health risk than to the lack of therapeutic usefulness. The Committee recommended that methylone be placed in Schedule II of the 1971 Convention.